UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF INDIANA INDIANAPOLIS DIVISION

HOOSIER ENVIRONMENTAL COUNCIL, CITIZENS FOR APPROPRIATE RURAL ROADS, SASSAFRAS AUDUBON SOCIETY, BRENDA BUSTER, TERRY BUSTER, ANDREW RUFF, EDITH SARRA,) MARK STOOPS, SOPHIA TRAVIS, Plaintiffs, CASE NO. 1:06-cv-1442-DFH-TAB v. UNITED STATES DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, J.RICHARD CAPKA, as Administrator of the Federal Highway Administration, ROBERT F. TALLEY, JR., as Division Administrator of the Federal Highway Administration Indiana Division, UNITED STATES DEPARTMENT OF THE INTERIOR, DIRK KEMPTHORNE, as Secretary of the United States Department of the Interior, UNITED STATES FISH AND WILDLIFE SERVICE, H. DALE HALL, as Director of the United States Fish and Wildlife Service, MARY E. PETERS, as Secretary of the United States Department of Transportation, KARL B. BROWNING, as Commissioner of the Indiana Department of Transportation, Defendants.

ENTRY ON MOTIONS FOR SUMMARY JUDGMENT

Under the Administrative Procedure Act, 5 U.S.C. § 706 (2)(A), plaintiffs seek judicial review of a final decision by the Federal Highway Administration and the Indiana Department of Transportation to build a new interstate highway through

southwestern Indiana from Indianapolis to Evansville along a route called Alternative 3C.

Plaintiffs are the Hoosier Environmental Council and several other groups and individuals concerned about the environmental impacts expected from construction along the proposed route. They contend that the selection of Alternative 3C was arbitrary, capricious, and not in accordance with the procedural safeguards of the National Environmental Policy Act ("NEPA") and the more substantive protections of the Clean Water Act, the Endangered Species Act, and the Department of Transportation Act. Both sides have moved for summary judgment. As explained below, the court finds that the agencies' decision was not arbitrary or capricious. Plaintiffs' arguments show reasonable differences of opinion about whether and how the highway should be built, but they do not show violations of law. Plaintiffs have raised some issues about possible future violations of law in later stages of planning and approval of the highway, but plaintiffs have not shown that defendants have acted contrary to law thus far or that they are highly likely to do so in the near future. Accordingly, plaintiffs' summary judgment motion is denied and defendants' summary judgment motions are granted.

Facts for Summary Judgment

For over half a century, Indiana has been searching for a route to build a major highway through the southwestern quadrant of the state. The issue has generated much debate and controversy. Beginning in 1944, before many of the major highways that now crisscross the state were constructed, the Indiana State Highway Commission – the precursor of the Indiana Department of Transportation – began studying a route from Evansville to the Chicago metropolitan area and a route from Evansville to Indianapolis through Bloomington. At that time, neither route led to a satisfactory path across Kentucky. Both were abandoned. Over the next sixty years, the state made a variety of proposals to connect Evansville with central and northern Indiana. Some involved toll roads, some passed through Indianapolis, some ended in Lafayette, some sought to upgrade existing state roads and highways, and some recommended construction over new terrain. Most were dismissed as economically unfeasible.

In 1989, however, research indicated that a corridor from Indianapolis to Evansville was viable based on "optimistic' assumptions for business attraction." FEIS 79. The corridor followed existing State Roads 37, 45, and 57 and joined Interstate 64 and Interstate 164 near Evansville. Based on this information, the

¹The record consists of several NEPA documents, including the Record of Decision and the Final Environmental Impact Statement, and many other agency documents. Each is stamped with a NEPA document or agency title abbreviation – such as ROD, FEIS, FHWA, and FWS – followed by a page number. The court has adhered to that format in citing the record.

Indiana Department of Transportation ("INDOT") began conducting extensive environmental studies in 1990 for a project it called the "Indianapolis to Evansville Highway." In collaboration with expert agencies, INDOT investigated and surveyed geological karst features, forest plots, wetlands, and plant and animal populations, in addition to completing a substantial literature review.

While the name indicated that Indianapolis was the project's terminus, the proposal assumed but did not encompass the Indianapolis–Bloomington link via State Road 37. INDOT later defined the project as a route between Bloomington and Evansville and began referring to it as the "Southwestern Indiana Transportation Corridor." In 1991, Congress passed the Intermodal Surface Transportation Efficiency Act, Pub. L. No. 102-240, 105 Stat. 1914, identifying an interstate between Indianapolis and Memphis, Tennessee via Evansville as a "high-priority corridor" for future construction. ROD 5. Amendments in 1995 extended the corridor to the north and to the south.

In the spring of 1996, INDOT, with the help of the Federal Highway Administration ("FHWA"), published a draft environmental impact statement for the proposed highway. After reviewing the draft, the United States Environmental Protection Agency ("EPA") recommended that INDOT prepare a supplemental draft to consider how non-transportation alternatives could serve the project's goal of regional economic development. The EPA indicated that other development initiatives might boost southwestern Indiana's economy without having to build

a new highway. The EPA also asked INDOT to address more explicitly the highway's potential secondary impacts on land surrounding the highway. In the summer of 1996, INDOT held hearings to solicit public comments on the draft.

Four major themes emerged from the public comments. First, the true scope of the project was a corridor from Evansville to Indianapolis rather than one from Evansville to Bloomington. Commenters urged INDOT to expand the project's focus beyond a Bloomington route to consider alternatives that covered other areas of southwestern Indiana. Second, commenters identified a specific plausible alternative for INDOT to consider – a route that used the existing Interstate 70 from Indianapolis to Terre Haute and then headed south to Evansville on existing U.S. Route 41. Third, numerous commenters were concerned about the project's economic feasibility. Fourth, commenters were anxious about the impacts the highway would have on the environment and on existing businesses operating along routes not chosen as the preferred corridor.

After the comment period, INDOT began preparing a supplemental draft environmental impact statement to address the EPA's and the public's concerns. INDOT hired a consulting group, the Council on Urban Economic Development, to research non-transportation alternatives that could promote economic development. The consulting group concluded that non-transportation alternatives existed but that a highway was necessary for those alternatives to

work. INDOT continued its work on the supplemental draft through the spring of 1998.

On June 9, 1998, President Clinton signed the Transportation Equity Act for the 21st Century, Pub. L. No. 105-178, 112 Stat. 107. This legislation provided for an international trade route crossing the United States from the Canadian border at Port Huron, Michigan to the Mexican border at Laredo, Texas. Congress named the segment that included Indiana "Interstate Route I-69." ROD 5. The northern part of I-69 already existed, entering Indiana from Michigan and extending to Indianapolis. Again, Evansville would be the southern terminus for the Indiana portion of the international trade route. That same summer, INDOT withdrew its extant proposal for a highway from Bloomington to Evansville. In November 1998, INDOT announced that it would expand the scope of the project to recognize that Indianapolis and Evansville were the appropriate end points and to include alternatives to the previously studied Bloomington route and to a highway solution in general.

In May 1999, INDOT outlined its approach for the expanded project. Three overarching purposes guided the entire process: (1) strengthening southwestern Indiana's highway network, (2) stimulating economic growth in southwestern Indiana, and (3) completing the Indiana portion of the international trade route. INDOT planned to examine several alternative corridors and combinations of corridors in two different tiers. The first tier would address a variety of issues,

including selecting project goals, generating reasonable alternatives, choosing to build or not to build, and choosing a mode of transportation if a build option was selected. After analyzing key performance and environmental factors for each route, INDOT would select one corridor for detailed field studies addressing specific impacts in the second tier. Based on information gathered during the second tier, INDOT would finalize an alignment and the appropriate mitigation measures needed.

The first tier began with INDOT selecting the project's "core goals." Each of the three overarching purposes listed above encompassed a number of goals, three of which INDOT chose to elevate to "core goals." First, the project would need to improve the transportation link between Evansville and Indianapolis. Second, the project would need to improve "personal accessibility" for residents living in southwestern Indiana. Third, the project would need to complete the Indiana portion of the international trade route.

INDOT initially considered nineteen possible routes divided into four regional groups. FEIS 156. A private consulting firm – Bernardin-Lochmueller and Associates – collected basic data for each route using a variety of performance measures as well as cost predictions. The firm identified routes from each group that best advanced the project's core goals and separated the routes into five regional alternatives. In November 2001, INDOT solicited comments from the public and other agencies about the five alternatives. In response to these

comments, INDOT added variations within the five alternatives, creating a total of twelve routes – 1, 2A, 2B, 2C, 3A, 3B, 3C, 4A, 4B, 4C, 5A, and 5B – using a "nobuild" alternative as a baseline. INDOT and FHWA then compiled data from existing sources for each alternative. They analyzed geographic information system ("GIS") maps to provide an overview of the resources that would be affected. Federal and state agencies provided information about environmental and cultural impacts. These agencies also took a two-day bus tour of the alternatives with a biologist but did not conduct any field studies.

Based on the performance measure and environmental and cultural impact data, INDOT classified the alternatives as either preferred or non-preferred. INDOT did not prefer Alternatives 1, 2A, 2B, and 4A because of their poor ability to meet the project's core goals. FEIS 555. INDOT did not prefer Alternatives 3A, 5A, and 5B because of their expected significant impacts on highly sensitive natural resources. FEIS 554. In the end, INDOT identified Alternatives 2C, 3B, 3C, 4B, and 4C as preferred alternatives. INDOT published these results in July 2002 for agency and public comment. Agencies and the public – including the EPA, the Department of the Interior, and the plaintiffs – submitted more than 22,000 comments.

In November 2002, the EPA asked INDOT to reconsider Alternative 1 – an upgrade of existing I-70 and U.S. Route 41 that was the least environmentally damaging route proposed. The EPA stated that the preferred alternatives

identified in the draft environmental impact statement would have significant impacts on sensitive resources, "particularly wetlands and aquatic resources and potential impacts to surface/ground water associated with karst areas." FHWA 17513. The EPA also suggested that INDOT consider combinations of alternatives to determine if other routes would cause fewer environmental impacts than the preferred alternatives while simultaneously performing well under the project's core goals.

The EPA was particularly concerned that the selection of a limited group of preferred alternatives would affect the permitting process required in the second tier of environmental analysis and decision-making. Under the Clean Water Act, the United States Army Corps of Engineers ("Army Corps") must grant permits before dredge and fill material may be put into navigable waters that the United States governs. To qualify for the permit, the applicant must show that the chosen course would have the least adverse impact on aquatic ecosystems out of all the practicable alternatives, so long as the chosen course will not also have other significant negative environmental impacts. The EPA urged INDOT to meet with the Army Corps and federal and state environmental agencies to ensure that a least damaging practicable alternative would still be available for consideration during the permit process in the second tier.

The Department of the Interior also expressed a preference for Alternative

1. The Department noted that Alternative 1 had the "fewest impacts to

[threatened and endangered] species, forests, core forests, wetlands, floodplains, karst features, rivers listed on the [Nationwide Rivers Inventory], and water quality." FEIS 2926. The Department also stated that it had "significant objections" to Alternative 3C but recognized that Alternative 3C would cause fewer environmental impacts than Alternatives 3A and 3B. *Id*.

The plaintiffs and other commenters also voiced a number of concerns about the draft. Among other issues, the plaintiffs questioned the use of "tiering" (described in detail below) for the environmental analysis, the lack of attention devoted to the no-build alternative, the failure to perform a cost-benefit analysis, the motives underlying INDOT's chosen core goals, and the conclusions drawn about southwestern Indiana's transportation needs and economic conditions. The plaintiffs identified a number of environmental and cultural concerns, including the potential impacts on Amish and Mennonite communities, on the endangered Indiana bat, and on public land and protected resources. The plaintiffs also submitted a review by a private consulting firm (Smart Mobility, Inc.) of the measures used to evaluate each alternative's alignment with the project's core goals.

In January 2003, Indiana Governor Frank O'Bannon announced that he had accepted INDOT's recommendation to choose Alternative 3C as the I-69 corridor. Alternative 3C followed a path very similar to the route studied in the 1990s from Bloomington to Evansville. The route would require construction on

new terrain from Evansville to Bloomington, where it would then track the existing State Road 37 to Indianapolis. After this announcement, INDOT and FHWA began working with other agencies to determine how federal and state laws and regulations would affect the viability of Alternative 3C.

In particular, INDOT and FHWA worked with the Bloomington field office of the United States Fish and Wildlife Service to determine the effects Alternative 3C would have on two endangered species: the Indiana bat and the bald eagle. Using existing data, the same private consulting firm that studied the initial nineteen alternatives' performances of the project's core goals – Bernardin-Lochmueller – prepared a biological assessment of Alternative 3C's effects on the Indiana bat and the bald eagle. FWS 2022. Using this assessment, the Bloomington field office issued a biological opinion on December 3, 2003, stating that Alternative 3C was unlikely to jeopardize the existence of or to affect critical habitat for either species. On December 5, 2003, INDOT and FHWA adopted this finding and published the final environmental impact statement for the first tier. FEIS 3. After soliciting another round of public comments, the FHWA issued a Record of Decision on March 24, 2004, officially adopting Alternative 3C as the I-69 corridor through southwestern Indiana. ROD 8. This Record of Decision and its supporting documents are the basis for this judicial review of the administrative decision to select Alternative 3C for Interstate 69.

In 2004 and 2005, in conjunction with other agencies, INDOT and FHWA conducted field studies to select the final alignment and mitigation measures needed for Alternative 3C. The agencies divided the route into six segments that INDOT and FHWA asserted had "independent utility" and could proceed individually. The schedule slated construction of the two most southern miles to begin in 2008. FWS 7093. The agencies said they planned to scrutinize carefully each segment in the second tier, generating six separate and more detailed environmental impact statements. During this series of more detailed analyses, field studies of the Indiana bat population revealed new information about the bats' use of habitat close to Alternative 3C.

Because of these new findings, the United States Fish and Wildlife Service reinitiated consultation with INDOT and FHWA about the route's projected impacts on the Indiana bat. But on August 24, 2006, the Fish and Wildlife Service affirmed its earlier conclusion that Alternative 3C is likely to affect the Indiana bat but is not likely to jeopardize its continued existence. The plaintiffs brought this suit on October 2, 2006, alleging a variety of violations under NEPA and other environmental protection laws.

Standard of Review

The Administrative Procedure Act requires a reviewing court to set aside an agency action if the action is arbitrary or capricious, constitutes an abuse of

discretion, or otherwise contravenes relevant law. 5 U.S.C. § 706(2)(A). The reviewing court's search is careful and complete but limited to answering two questions: (1) whether the agency made its decision after considering relevant factors, and (2) whether the agency committed a clear error in judgment. See *Highway J Citizens Group v. Mineta*, 349 F.3d 938, 952-53 (7th Cir. 2003). The court's role in applying the arbitrary-and-capricious standard in environmental cases is to ensure that the agency took a "hard look" at the probable environmental consequences. See *Navajo Nation v. United States Forest Service*, 479 F.3d 1024, 1053 (9th Cir. 2007); *National Audubon Society v. Department of the Navy*, 422 F.3d 174, 185 (4th Cir. 2005) (defining "hard look" as encompassing at the least "a thorough investigation into the environmental impacts of an agency's action and a candid acknowledgment of the risks that those impacts entail").

Discussion

I. National Environmental Policy Act of 1969

A. Tiering

The principal issue in this case is the use of "tiering" and its effect on environmental impact analyses conducted under the National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-4347. The act requires agencies involved in major federal actions to work together to consider various means of achieving the project's goals while minimizing the project's detrimental environmental

impacts. After gathering and analyzing high quality scientific information, agencies must prepare a detailed environmental impact statement discussing the information gathered, the alternatives considered, and the environmental effects the project would cause if implemented. 42 U.S.C. § 4332; 40 C.F.R. § 1500.1(b). This statement is published for comment by public officials and the general public before any final decisions are made. 40 C.F.R. § 1500.1(b) (observing that expert agency and public scrutiny is essential to implementing environmental policy).

The goal of this inter-agency and public cooperation is to help public officials "take actions that protect, restore, and enhance the environment" using a comprehensive understanding of environmental consequences. § 1500.1(c). The act does not mandate a particular outcome or contain substantive environmental standards. See *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989) ("it is now well settled that NEPA itself does not mandate particular results, but simply prescribes the necessary process"); *Kerns v. United States Bureau of Land Management*, 284 F.3d 1062, 1066 (9th Cir. 2002); *Utahns for Better Transportation v. United States Department of Transportation*, 305 F.3d 1152, 1162 (10th Cir. 2002). It ensures that agencies closely evaluate reasonable alternatives that would minimize environmental harm. See *Simmons v. United States Army Corps of Engineers*, 120 F.3d 664, 666 (7th Cir. 1997) (noting that the act "blends a faith in technocratic expertise with a trust in democracy. Officials must think through the consequences of – and alternatives to – their contemplated acts; and

citizens get a chance to hear and consider the rationales the officials offer."); 40 C.F.R. § 1502.1.

"Tiering," or dividing this analytical process into multiple phases, is permitted and encouraged to maximize efficient use of public administrative See 40 C.F.R. §§ 1502.20, 1508.28. Tiering allows agencies resources. contemplating projects of massive scope to sort through broad and far-reaching issues in an initial phase before expending the resources needed for more exacting determinations such as preparing engineering plans and acquiring rights-of-way in later phases. In large projects, the first tier often generates what are known as programmatic impact statements. Later tiers generate more appropriately timed site-specific impact statements. See Ilio'ulaokalani Coalition v. Rumsfeld, 464 F.3d 1083, 1094 (9th Cir. 2006) (recognizing that programmatic environmental impact statements must provide sufficient detail to ensure informed decision-making, but that agencies are not required to evaluate site-specific impacts fully until final decisions on site development have been made); Nevada v. Department of Energy, 457 F.3d 78, 91-92 (D.C. Cir. 2006) (holding that the Department of Energy did not abuse its discretion by using tiering to first prepare a broad environmental impact statement before selecting "where in the preferred corridor to place the tracks" in a later, site-specific impact statement).

Here, INDOT and FHWA used tiering to gather information on twelve routes covering the southwestern quarter of Indiana before choosing one route to analyze

at the level of detail necessary actually to build the road. The choice to analyze the impacts of such a large project in tiers was not arbitrary or capricious. If every major federal action required the level of analysis proposed for the second tier for every alternative considered, public works could too easily grind to a halt and become hopelessly mired in their own bureaucracy. The literature and map review and the two-day bus tour did not turn over every rock, but the detailed information that was gathered showed INDOT and FHWA that Alternative 3C will require substantial mitigation and careful planning. The art of effective tiering is to find the appropriate depth of detail at each level. Given the twenty-six county area studied for a highway ranging between 141 and 156 miles, FEIS 538, the level of detail in the first tier selection of Alternative 3C was not arbitrary and capricious.

The efficiency gained, however, does not come without significant risk. Environmental impacts that appear to be tolerable and potentially manageable in the first tier may emerge as unacceptable threats to affected species and ecosystems during the more detailed scrutiny in the second tier. In comments to the draft environmental impact statement, plaintiff Citizens for Appropriate Rural Roads, Inc. wrote that tiering "is being abused by INDOT to avoid comparing alternatives on detailed impacts. Apparently, INDOT views this process as a test case for tiering (Appendix Y, MPO Scoping Meeting Feb. 23, 2000) for which INDOT says there are no specific guidelines. Failure to do a sufficiently thorough analysis now will lead to many problems in Tier 2." FEIS 2995, 3000.

The court is not persuaded that INDOT is abusing tiering on this project.² The plaintiffs' allegations of abuse rest on the assertion that tiering precludes a true comparison of the environmental effects of each alternative because the impacts are not examined fully until the second tier. The Department of Transportation considered that argument in 1979 when it created procedures governing compliance with NEPA regulations. See Procedures for Considering Environmental Impacts, 44 Fed. Reg. 56,420 (Dep't of Transp. Oct. 1, 1979) (final order revising compliance procedures). The Department evaluated the risks posed by broad level comparisons and still "retained its emphasis upon encouraging the preparation of broad scale" environmental impact statements. *Id.* at 56,421. The Department encouraged but did not mandate conducting detailed environmental studies at the programmatic level. *Id.*

Tiering itself is an accepted and useful tool that can enable agencies to navigate efficiently and responsibly through large highway projects. See Procedures for Considering Environmental Impacts, 44 Fed. Reg. 31,341, 31,344 (Dep't of Transp. May 31, 1979) (stating that tiering of environmental impact statements "should be used when it will improve or simplify the environmental

²To the contrary, INDOT asserted and may be correct that problems arising in the second tier may be more attributable to existing tiering regulations that inadequately direct projects such as I-69 than to abusive agency practices. See William M. Cohen, *House and CEQ Task Forces Focus on NEPA*, American Law Institute-American Bar Association Continuing Legal Education, Feb. 8-10, 2006, at 329-30, *available at* SL063 ALI-ABA 325 (Westlaw) (reporting that a 2003 NEPA task force stressed the current need for promulgating guidance for programmatic tiering and managing the increasing complexity of implementation).

processing of proposed DOT actions"). It is impractical and unnecessary to require a site-specific analysis for each alternative considered in a project the size of Interstate 69. NEPA gives agencies wide discretion to gather and assess the scientific evidence relied upon in environmental impact statements. See 42 U.S.C. § 4332; *Earth Island Institute v. United States Forest Service*, 351 F.3d 1291, 1301 (9th Cir. 2003). Looking at the I-69 project's impacts within a twenty-six county study area on a broad scale to make informed choices about future steps was an appropriate rather than an abusive use of tiering.

The plaintiffs correctly identify, however, that streamlining the first tier may result in a complicated set of hurdles for Alternative 3C when detailed information is gathered in the second tier. Among the "preferred alternatives" identified in the first tier, Alternative 3C forecasts the least environmental impact. The non-preferred alternatives were rejected for either even greater environmental impacts or poor performance under the project's accessibility and development goals. If Alternative 3C turns out to be environmentally unfeasible in the second tier, INDOT and FHWA may have to revisit earlier scoping decisions to find a solution.

Also, as discussed in detail below, if tiering is not carefully coordinated and checked, it can enable agencies to abrogate or circumvent provisions of other environmental laws with substantive mandates and safeguards. See Beth C. Bryant, NEPA Compliance in Fisheries Management: The Programmatic Supplemental Environmental Impact Statement on Alaskan Groundfish Fisheries and

Implications for NEPA Reform, 30 Harv. Envtl. L. Rev. 441, 444-54, 476-78 (2006) (discussing the potential of tiering to streamline the environmental evaluation process, but observing that the current understanding and use of tiering may result in a "shell game" if not carefully managed). Such a result would be impermissible. NEPA requires federal agencies to coordinate fully the environmental impact policy process with other substantive policies, regulations, and laws. See 42 U.S.C. § 4332.

Alternative 3C – will have a number of environmental impacts. The agencies foresee those impacts as manageable and acceptable at this point. But after federal and state agencies conduct more detailed field studies along the Alternative 3C corridor and the agencies must face more detailed decisions about a more precise route, those impacts may or may not turn out to be acceptable. It is possible, although not probable given the information available, that INDOT and FHWA may have to return to the drawing board and reconsider previously rejected alternatives to achieve their goals. That possibility is, however, a risk inherent in, and not an abuse of, tiering. The use of tiering here does not violate NEPA or other environmental laws. As discussed below, plaintiffs' claims that Alternative 3C may violate the substantive requirements of other environmental laws are not proven on this record at this stage of the process. See *Nevada v. Department of Energy*, 457 F.3d 78, 84-85 (D.C. Cir. 2006).

B. Purpose and Need Statement and Selection of Alternative 3C

Plaintiffs challenge the defendants' development of the project's purpose and need statement, particularly the selection of the project's three core goals: (1) improving the transportation link between Evansville and Indianapolis; (2) improving personal accessibility for residents living in southwestern Indiana; and (3) completing the Indiana portion of the international trade route. The plaintiffs assert that defendants chose these goals to guarantee in general that Alternative 3C would be selected as *the* preferred route, and to eliminate in particular Alternative 1 (the upgrade of existing I-70 and U.S. Route 41).

Since 1989, when the defendants first found that a highway from Bloomington to Evansville might be economically justifiable, routes very similar to Alternative 3C have been scrutinized for possible construction. This analysis, however, was preceded by half a century of research looking for any route through all of southwestern Indiana that would justify the cost. Studies looked at routes very similar to Alternative 1 and repeatedly found that the routes were not feasible. FEIS 76-78. Researchers thought they found something that might work in a route from Indianapolis that would touch Bloomington and the Crane Naval Surface Warfare Center (in Martin County) on the way to Evansville. FEIS 79, 174-75; FHWA 2199. It is no surprise then, that the purposes and goals for the I-69 project involved the type of economic and institutional access the responsible

agencies thought necessary to justify a highway running through southwestern Indiana.

The plaintiffs dispute numerous findings about traffic congestion, traffic safety, the need for personal accessibility, and the cost-benefit analyses for Alternatives 1 and 3C. The bases for their claims are factual disagreements rather than an application of law to settled facts. Under NEPA, courts give substantial deference to agency resolution of factual disputes. See *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 376-77 (1989) (deferring to Army Corps' administrative decision when dispute rested on contested facts). None of the information presented convinces the court that INDOT and FHWA acted arbitrarily and capriciously in determining that a highway following Alternative 3C would boost the area economy and personal accessibility of residents to universities, metropolitan areas, and employment centers.

The plaintiffs rely heavily on *Simmons v. United States Army Corps of Engineers*, 120 F.3d 664 (7th Cir. 1997). In *Simmons*, the city of Marion, Illinois wanted to dam a creek to create a reservoir of water for the city and surrounding areas. *Id.* at 667. From the very beginning of the project, the city saw the only solution as damming up that particular stream to meet the region's water needs. The city did not consider looking at other streams or other options that would use multiple sources to supply the needed water. *Id.* at 669. Without researching other alternatives, the Army Corps adopted the city's preference for a single source

solution and determined that the proposed project was "environmentally sustainable." *Id.* at 668-70. The Seventh Circuit found that this focus on taking a single action without testing or even looking at any alternatives violated the National Environmental Policy Act. *Id.* at 669-70. The act prohibits federal agencies from ramming "through a project before first weighing the pros and cons of the alternatives." *Id.* at 670.

The present case is not similar. It is true that INDOT and FHWA began by looking at a route very similar to the one they selected at the end of the first tier. In the meantime, however, the agencies considered a wide variety of proposals including non-transportation and no-build alternatives. Unlike the agencies in *Simmons*, INDOT and FHWA gathered information about a variety of alternatives, eliminated some for not meeting the project's goals and others for being too environmentally destructive, and found themselves left with a group of plausible preferred alternatives. From among this group, INDOT and FHWA selected the route projected to cause the least environmental harm.

³The plaintiffs assert that the defendants did not consider one of their suggestions in the comment period following the publication of the final environmental impact statement: a "broader range of transportation and non-transportation alternatives" that does not "narrow the range of choices to only a limited access interstate highway." FHWA 22148. This vague and general comment did not point the agencies to a reasonable alternative or hybrid they failed to consider, and it does not require a remand. See *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 553 (1978) (requiring "intervenors who wish to participate to structure their participation so that it is meaningful, so that it alerts the agency to the intervenors' position and contentions"). Saying, in essence, "consider something else" does not meet the *Vermont Yankee* standard for meaningful participation.

The National Environmental Policy Act relies upon "a faith in technocratic expertise with a trust in democracy." *Simmons*, 120 F.3d at 666. Public officials are required to consider reasonable alternatives, to listen and respond to objections, and to explain the reasons for choosing a selected route. Citizens, likewise, have the opportunity to examine, criticize, and test the government's proposed course of action. But in the end, after evaluating a range of possible alternatives, if the democratically accountable government chooses a course of action disagreeable to some, that decision still stands. INDOT and FHWA did not act arbitrarily or capriciously in adopting the chosen core goals for the I-69 project or in selecting Alternative 3C.

C. Karst Data

Under NEPA, the plaintiffs challenge INDOT's and FHWA's failure to consider the best available information regarding several karst areas along Alternative 3C. Karst is a term that describes geological features such as caves, sinkholes, and underground streams that are created when water slowly erodes bedrock. These features compose "highly specialized ecosystems" that shelter rare, threatened, and endangered species. FEIS 471. Groundwater quality in karst regions is particularly sensitive to construction and development because of "a very high, rapid degree of interaction between groundwater and surface water, with little buffering or filtration capacity." FHWA 17524. Several areas

south of Bloomington contain large numbers of caves, sinkholes, sinking stream basins, and other karst features.

In 1994, in preparing the 1996 environmental impact statement for a highway running from Bloomington to Evansville, Bernardin-Lochmueller – the same consulting firm that INDOT hired to help prepare the 2003 environmental impact statement – gathered detailed information and generated detailed maps about several of these areas. The plaintiffs argue that exclusion of the 1994 data from the first tier analysis proves that INDOT and FHWA did not take a "hard look" at the environmental impacts of Alternative 3C. INDOT and FHWA did not explicitly incorporate the detailed 1994 data into the 2003 environmental impact statement, but instead relied on larger scale maps provided by the Indiana Geological Survey. To justify the exclusion of the 1994 study in their 2003 analysis of Alternative 3C, the defendants respond that only broad level information was appropriate for comparing alternatives in the first tier.

There is some level of confusion in the discussion of the standard applicable to the type of information NEPA requires. The plaintiffs assert, and the defendants do not controvert, that the "[d]efendants must use the best available science to support their conclusions." Docket No. 59 at 34. Many environmental cases discuss this "best available science" standard. That standard, however, derives statutory authority from 16 U.S.C. § 1536(a)(2) – a provision of the Endangered Species Act. Section 1536(a)(2) requires that "each agency shall use

the best scientific and commercial data available" when evaluating a proposed action's impact on an endangered species. The National Environmental Policy Act imposes a different standard: rather than insisting on the best scientific information available, the regulations demand information of "high quality" and of professional integrity. 40 C.F.R. §§ 1500.1(b), 1502.24.

The 1994 study looked at five karst areas. One area is within the current Alternative 3C corridor and another area straddles the corridor. FHWA 22604. The report found that fourteen karst features in the area within Alternative 3C would be affected and that between eleven and eighty-one karst features in the area straddling Alternative 3C would be affected by the route. ROD 210. The report concluded that the area within Alternative 3C encompassed an acceptable level of impact and indicated a preference for the alignment that would affect only eleven features in the area straddling but not entirely within Alternative 3C. ROD 210, 212, 214. The 1994 study also indicated, although it did not discuss in any detail, that these karst features could be protected by a number of other federal laws: the Federal Cave Resources Protection Act of 1988, the Endangered Species Act of 1973, the Desert Land Acts, the Reclamation Act (National Irrigation Act of 1902), and the Safe Drinking Water Act of 1974. ROD 201, 205.

When published in 1996, the 1994 study listed but did not attach nine exhibits relating to the five different study areas. ROD 169. The 1994 study and the existence of these detailed maps came to the public's attention in February

and March of 2004. FHWA 22762-64. In a March 2, 2004 letter to the EPA and FHWA, the plaintiffs expressed their concern that INDOT and FHWA had improperly excluded the 1994 study from the final environmental impact statement. FHWA 22762-63. On March 23, 2004, the day before INDOT and FHWA published the Record of Decision, the EPA responded that "it would have been beneficial" for INDOT and FHWA to have disclosed previously that Bernardin-Lochmueller and the acting agencies had access to the 1994 study. FHWA 22832. The EPA reiterated, however, that the larger scale Indiana Geological Survey maps were appropriate for the first tier because of the project's large study area and complexity, but the EPA requested that INDOT and FHWA commit to evaluating the 1994 data in the second tier. *Id.*

In response to these comments, INDOT and FHWA submitted the 1994 study – without the nine exhibits – as part of the Record of Decision and identified the missing exhibits as oversized maps and asserted that Table 1 of the 1994 study, see ROD 177-84, adequately summarized the maps' contents. ROD 404. The agencies reaffirmed their decision to use only the Indiana Geological Survey maps during the first tier analysis, ROD 156-60, 403-04, and did not disturb their earlier finding that Alternative 3C would affect only fifty karst features, ROD 17; FEIS 472.⁴ In the Record of Decision, INDOT and FHWA also asserted that the

⁴Table 5.23-1 of the final environmental impact statement reported that Alternative 3C would affect fifty "acres" of sinkhole areas and sinking stream basins. FEIS 472. Table 3 in the Record of Decision, however, estimated that Alternative 3C will affect fifty karst "features." ROD 17. Note 11 to Table 3 (continued...)

1994 data revealed that "Alternative 3C avoided many of the karst features identified in [the 1994] report." ROD 405.

By excluding the 1994 study from the first tier evaluation, INDOT and FHWA did not analyze all of the available existing information detailing how Alternative 3C would affect karst features. This exclusion was not arbitrary and capricious because the purpose of the first tier analysis is to compare alternatives. For comparison purposes, it is reasonable to evaluate information of the same level of detail for all twelve alternatives studied. That approach could help ensure a more level playing field for comparisons of the various alternatives. That approach, of course, is not free of the risk that scrutiny in the second tier will demonstrate that the impacts will be much greater than the earlier analysis had projected.

For example, on January 30, 2004, Patrick Munson and several other geological and caving experts submitted a field study of fourteen and a half miles of karst features along Alternative 3C. The commenters submitted this information after INDOT and FHWA published the final environmental impact statement on December 5, 2003, but before the agencies published the Record of

⁴(...continued)

explained that only those sinkhole areas that are at least eighty acres in size are included in the fifty karst features Alternative 3C is expected to affect. The court interprets this information to mean that the agencies expect Alternative 3C to impact fifty karst features, including sinkhole areas that are at least eighty acres in size.

Decision on March 24, 2004. This field study revealed 279 sinkholes (of unreported size), two pit caves, two areas that might be pit caves, three areas that might be extensive horizontal caves, and eight constantly flowing springs. FHWA 21972. The study estimated that Alternative 3C would cross 222 sinkholes in the fourteen and a half miles studied, excluding other karst areas that the route would cross but that were not included in the 2004 field survey. *Id.* at 21972-73. The commenters reported that they identified these features in areas that the final environmental impact statement had indicated did "not hav[e] frequent sinkholes or other karstic features." FHWA 21970.

This detailed information is the type the federal and state agencies anticipate gathering in the second tier. It reveals that the 2003 environmental impact statement may have underestimated the actual number and type of karst features that Alternative 3C will affect. This and other detailed data gathered in the future may trigger substantive environmental legal protections, may affect the engineering and construction costs INDOT and FHWA originally found feasible, and may have a significant effect on the project's future in the second tier.

NEPA gives agencies wide discretion to collect and evaluate scientific data in the course of preparing environmental impact statements. See *Earth Island Institute*, 351 F.3d at 1301. NEPA does not, however, permit agencies to falsify data or to ignore available information that undermines their environmental impact conclusions. See *Earth Island*, 351 F.3d at 1302; 40 C.F.R. § 1502.24

(requiring agencies to ensure the professional and scientific integrity of their environmental impact statements).

The court, as well as the public, has not seen the nine exhibits prepared for but never submitted with the 1994 study. If detailed information like the kind Mr. Munson and his colleagues submitted in 2004 shows in the second tier that Alternative 3C will have an unacceptable impact, and if the defendants could have drawn that conclusion by consulting the 1994 information they had access to, claims that INDOT and FHWA improperly excluded the 1994 data from the first tier analysis could then, if proven, require the agencies to go back to the first tier of decision-making. See Earth Island Institute v. United States Forest Service, 442 F.3d 1147, 1160 (9th Cir. 2006) ("If an agency has failed to make a reasoned decision based on an evaluation of the evidence, we may properly conclude that an agency has acted arbitrarily and capriciously."); National Audubon Society v. Department of the Navy, 422 F.3d 174, 194 (4th Cir. 2005) ("An agency's hard look should include neither researching in a cursory manner nor sweeping negative evidence under the rug."). For now, however, the court finds nothing arbitrary or capricious about the exclusion of the 1994 study from the first tier analysis.

D. Supplemental Environmental Impact Statement

Under NEPA, the plaintiffs assert that INDOT and FHWA must prepare a supplemental environmental impact statement to address (1) changes in Indiana

law regarding Alternative 3C's route through Marion County, (2) changes in national air quality designations, and (3) increased cost estimates for building Alternative 3C. A supplemental environmental impact statement is necessary when "subsequent information raises new concerns of sufficient gravity such that another, formal in-depth look at the environmental consequences of the proposed action is necessary." Wisconsin v. Weinberger, 745 F.2d 412, 418 (7th Cir. 1984) ("an agency cannot have acted arbitrarily or capriciously in deciding not to file a SEIS unless the new information provides a seriously different picture of the environmental landscape such that another hard look is necessary"); 40 C.F.R. § 1502.9(c)(1).

As part of the debate over the construction and funding of I-69, the Indiana legislature enacted a law in March 2006 and another in March 2007 prohibiting the passage of I-69 as a tollway through Perry Township in southern Marion County. See Ind. Code §§ 8-15-2-1(d)(1), 8-15-3-9(e)(2). The text of both provisions specifically prohibits the construction of I-69 rather than the construction of a tollway. The legislature, however, enacted both provisions in a chapter entitled "Tollways." For a brief period of time, the state proposed building I-69 as a tollway, but the state has since withdrawn that proposal. These changes do not require a supplemental environmental impact statement.⁵

⁵If I-69 were going to proceed as a tollway, however, these provisions would certainly interfere with its current planned route through southern Marion County. But the provisions are no longer an obstacle. I-69 is not going to be built as a tollway, and the state of Indiana has conceded in this case that the provisions (continued...)

INDOT and FHWA can adequately address the changes in federal air quality designations in the environmental impact statements published in the second tier. Since the publication of the 2003 environmental impact statement, nine counties including and surrounding Indianapolis moved from "maintenance status" to "non-attainment status," two counties moved into "maintenance status," and several counties in the Evansville area also moved into "non-attainment" status. FHWA 23718. These are clearly serious issues. INDOT and FHWA will need to ensure compliance with the Clean Air Act requirements. But no single alternative escapes the brunt of these changes, particularly because the most serious impacts appear to be around Evansville and Indianapolis, where all the alternative routes begin and end. INDOT and FHWA can appropriately address these issues in the second round of environmental impact statements without preparing a supplement to the first tier.

INDOT and FHWA can also adequately address the changes in projected costs in the environmental impact statements published in the second tier. The first tier documents estimated that construction of the first segment of Alternative 3C would cost between \$112 million and \$131 million in year 2000 dollars. FEIS 590; FHWA 24070. The agencies reported that when adjusted for inflation in 2004 dollars, the appropriate range for comparison was between \$139 million and \$162 million. FHWA 24071. Expecting further inflation and general increases in

⁵(...continued) apply only if the road is built as a tollway.

construction costs, INDOT and FHWA estimated in the second tier's draft environmental impact statement for the first segment that the first segment would cost \$230 million by 2010. FHWA 24070-71.

The plaintiffs argue that these increasing cost projections warrant a supplemental environmental impact statement. Not all inaccuracies later found in an environmental impact statement, however, warrant a supplement. See Sierra Club v. United States Army Corps of Engineers, 701 F.2d 1011, 1035 (2d Cir. 1983). In Sierra Club, the court noted that "had reasonable investigative efforts resulted in less accurate data than later became available, the determination as to whether the later data warranted preparation of a SEIS would be a matter committed to the discretion of the responsible agencies, not to the judgment of the court." Id. (internal citations omitted). Here, INDOT and FHWA made cost predictions based on the data available to them at the time. There is no indication that they unreasonably relied on that data, and thus there is no reason for the court to disturb the agencies' decision not to supplement the 2003 statement. At this point in the I-69 project, the end of the first tier, none of the defendants' actions have violated NEPA.

II. Clean Water Act

The Clean Water Act requires the Army Corps to evaluate applications and to decide whether to issue permits for discharging material into navigable waters.

33 U.S.C. § 1344. The term "navigable waters" is broad. The term encompasses wetlands, tributaries of navigable waters, and bodies of water the use or the degradation of which could affect interstate commerce. See *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121, 133-34 (1985); *United States v. Gerke Excavating, Inc.*, 464 F.3d 723 (7th Cir. 2006); *Bricks, Inc. v. United States Environmental Protection Agency*, 426 F.3d 918, 924 n.2 (7th Cir. 2005). The EPA and Army Corps have issued numerous regulations to guide the permitting process. See 40 C.F.R. Part 230; 33 C.F.R. §§ 320.2(f), 320.4.

One regulation prohibits the Army Corps from issuing a permit if a practicable alternative exists that would have a less adverse impact on the environment than the proposed course of action, so long as the alternative causes no other significant, negative environmental impacts. 40 C.F.R. § 230.10(a). An alternative is "practicable" if it is feasible according to the logistical, cost, and technological needs dictated by the project's goals. 40 C.F.R. § 230.10(a)(2).

The permit applicant is responsible for proving compliance. See *Utahns for Better Transportation v. United States Department of Transportation*, 305 F.3d 1152, 1187 (10th Cir. 2002). The Army Corps makes the decision to issue or deny permits. That decision is subject to the EPA's discretionary power to veto under certain circumstances. See *Bersani v. United States Environmental Protection Agency*, 850 F.2d 36, 40 (2d Cir. 1988); 33 U.S.C. § 1344(c) (granting veto power where EPA determines that discharge will have an unacceptable effect on

municipal water supplies, shellfish beds, fishery areas, wildlife, or recreational areas); 40 C.F.R. § 231.1(a) (recognizing that the EPA can exercise its discretionary veto power over a proposed site for discharge before the application is approved or even submitted).

Here, INDOT and FHWA expect that Alternative 3C will affect thirteen areas of open water habitat, 127 perennial and intermittent streams, and seventy-five acres of wetlands. FEIS 2083. At least some of these areas will qualify as "navigable waters" requiring Clean Water Act permits. INDOT and FHWA scheduled applying for these discharge permits for the second tier.⁶

In comments on the first tier draft environmental impact statement, the EPA expressed concern that the selection of preferred alternatives would limit the Army Corps' ability to evaluate practicable alternatives. The EPA indicated that the alternatives identified as preferred in the first tier would not be practicable alternatives under the Clean Water Act because of the "magnitude and severity of the impacts associated with [those] alternatives as compared to other alternatives analyzed, but not preferred." FHWA 17514-15. For the Army Corps to fulfill its duty to ascertain the least environmentally damaging practicable alternative, the EPA felt that the Army Corps might need to take another look at some of the non-preferred alternatives. *Id.* In its comments on the first tier final environmental

⁶As discussed above, the decision to wait until the second tier to conduct site-specific analyses, including applying for Clean Water Act permits, was a reasonable one given the large scope of the I-69 project.

impact statement, the EPA noted the general state of confusion about how the Clean Water Act interacts with the tiered process that has been used here. FHWA 22598. The Army Corps itself requested that the final environmental impact statement include a preliminary Clean Water Act consistency analysis. FHWA 22618.

Responding to these comments, INDOT and FHWA coordinated meetings with the Army Corps and included a Clean Water Act consistency analysis in the final environmental impact statement. FEIS 2075-89. This analysis tracked the same decision-making process that led INDOT and FHWA to select Alternative 3C as the final preferred alternative. Unsurprisingly then, the analysis indicated that Alternative 3C was the least environmentally damaging practicable alternative. FEIS 2088-89.

After reviewing the final environmental impact statement, the Army Corps requested a few clarifications. The Army Corps asserted that while it appreciated INDOT's and FHWA's consistency analysis, "a final Corps determination as to compliance" with Clean Water Act regulations "cannot be made until final information is developed and provided under Tier 2 and presented in the formal request for a permit." FHWA 22619. The Army Corps characterized documentation prepared up to that point as "appropriate as part of early coordination for the anticipated" permitting. *Id.* In the Record of Decision, INDOT and FHWA cited this language in announcing that tiering did not preclude the

Army Corps "from considering the full range of corridor alternatives" when evaluating permit applications during the second tier. ROD 409.

This announcement was accurate. Neither the Army Corps in its permit evaluation nor the EPA in its decision whether to veto the issuance of any permit is constrained by INDOT's and FHWA's selection of a final route or a group of preferred alternatives.

In addition to the inter-agency cooperation that NEPA mandates, the Army Corps and the EPA have stringent obligations under the Clean Water Act and other substantive laws. The EPA has the power to veto any permits found to degrade significantly any municipal surface or groundwater or to cause significant loss to fisheries, shellfish beds, wildlife habitat, or recreation areas. 33 U.S.C. § 1344(c); 40 C.F.R. § 231.2(e). The Army Corps is required to determine whether less environmentally damaging alternatives exist in light of the project's logistical, cost, and technological needs. 40 C.F.R. § 230.10(a); see also *Simmons*, 120 F.3d at 669-70 (faulting the Army Corps for acting as a "rubber stamp" in not considering any practicable alternatives to the one pursued by the city).

For projects like highways that are not "water dependent," the Clean Water Act creates a presumption that practicable alternatives do exist. See *Utahns*, 305 F.3d at 1163; 40 C.F.R. § 230.10(a)(3). Projects are not water dependent if the activity associated with the discharge "does not require access or proximity to

or siting within the special aquatic site in question to fulfill its basic purpose." 40 C.F.R. § 230.10(a)(3). The presumption is rebuttable but requires a "persuasive showing concerning the lack of alternatives." *Utahns*, 305 F.3d at 1163; see also *Sylvester v. United States Army Corps of Engineers*, 882 F.2d 407, 409-10 (9th Cir. 1989). In *Sylvester*, the court reasoned that the Army Corps could not ignore the project's principal goals to substitute one that the Army Corps found more suitable. The court found, however, that the Army Corps might still find some alternatives practicable that did not accommodate goals of a project that were only incidental to the project's basic purpose. 882 F.2d at 409-10.

Under the Clean Water Act, the Army Corps and EPA might end up agreeing with INDOT's and FHWA's determination that Alternative 3C is the most suitable route, but they also might not. The selection of preferred alternatives in the first tier provides no more than guidance on that issue and does not control the final determination under the Clean Water Act. See *Bersani v. United States Environmental Protection Agency*, 674 F. Supp. 405, 415-17 (N.D.N.Y. 1987) (affirming EPA's denial of Clean Water Act permit to build shopping mall on swamp and determining that EPA was not bound by Army Corps' earlier findings in assessing the environmental acceptability of a discharge site, including whether practicable alternatives were available).⁷

⁷In Hoosier Environmental Council, Inc. v. United States Army Corps of Engineers, 105 F. Supp. 2d 953, 961, 1001-02 (S.D. Ind. 2000), Judge McKinney upheld the Army Corps' issuance of a Clean Water Act permit for construction of a riverboat casino based on the Corps' finding that there was no practicable (continued...)

Acting agencies like FHWA and INDOT cannot lessen the obligations the Clean Water Act imposes on the Army Corps and the EPA by the use of tiering or through the selection of preferred alternatives. The Clean Water Act requires a rigorous level of environmental protection, though the use of tiering in this project means that the Clean Water Act protections will not be triggered until the agencies reach the second tier of analysis.

III. Endangered Species Act

The Endangered Species Act requires the agency initiating a proposed action that affects "endangered" and "threatened" species to work with a consulting agency to protect the species and its critical habitat. 16 U.S.C. § 1536(a)(2). Before the consultation, the acting agency prepares or supervises the preparation of a biological assessment of the expected impacts. 50 C.F.R. § 402.12. The consulting agency reviews the assessment and then issues its ultimate determination of how the proposed action will affect the protected species and its critical habitat in a biological opinion. 16 U.S.C. § 1536(b)(3)(A). If the consulting

Simmons, 120 F.3d at 669-70; Bersani, 674 F. Supp. at 415-17.

alternative that would have met the project's goals. In dicta, the opinion states: "The Court is not convinced that the [Army Corps] was even required to consider the other potential riverboat sites that had been rejected by the [Indiana Gaming Commission] in connection with this permit application." *Id.* at 1002. This portion of the opinion cites standards under NEPA rather than under the Clean Water Act. As explained in *Bersani*, the Clean Water Act and its legislative history demonstrate that an acting agency's determination is useful but not binding on the Army Corps and the EPA. The Clean Water Act requires these reviewing agencies to make their own determinations about practicable alternatives. See

agency determines that the action will not violate the Endangered Species Act, but will cause incidental deaths among the species population, the consulting agency must also provide a written statement setting forth terms and conditions necessary or appropriate to minimize incidental "takings" (deaths) of the species. 16 U.S.C. § 1536(b)(4).

During the first tier, INDOT and FHWA hired Bernardin-Lochmueller to do a biological assessment of Alternative 3C's impacts on protected species. The biological assessment indicated that Alternative 3C would affect both the bald eagle (now a "threatened" species) and the Indiana bat (an "endangered" species). Alternative 3C also has the potential to affect portions of the Indiana bat's critical habitat. INDOT and FHWA initiated consultation with the Fish and Wildlife Service in the summer of 2003. The Fish and Wildlife Service reviewed and commented on the biological assessment and released its biological opinion on December 3, 2003. The Fish and Wildlife Service determined that Alternative 3C might negatively affect both protected species, but that with effective mitigation, it would not jeopardize the continued existence of either the bald eagle or the Indiana bat. FWS 2086-90, 2092-93, 2096. The Fish and Wildlife Service also did not see Alternative 3C as likely to affect adversely critical habitat for the Indiana bat. The "incidental take" statement – a document that accepts a certain number of species deaths under specified conditions – reiterated the proposed mitigation measures and estimated a total of ten Indiana bat deaths per year caused by vehicles. FWS 2099.

As field studies for the second tier began, new information surfaced. The Fish and Wildlife Service withdrew its 2003 biological opinion in favor of a revised biological opinion issued August 24, 2006. The plaintiffs' arguments regarding Endangered Species Act violations focus on possible defects in the Indiana bat analysis in this 2006 biological opinion. The issues revolve around the accuracy of the projected impacts and the acceptability of the mitigation measures the defendants proposed. The plaintiffs first contend that the biological opinion makes unsupportable assertions about the extent and vulnerability of Indiana bat maternity colonies. The plaintiffs next contend that the proposed mitigation measures are legally insufficient because they incorrectly define the Indiana bat's summer action area and assume future acquisitions of critical habitat.

A. History and Status of the Indiana Bat

⁸Although INDOT and FHWA did not have the benefit of reviewing the 2006 biological opinion before issuing the Record of Decision in 2004, NEPA does not require a supplemental environmental impact statement unless "subsequent information raises new concerns of sufficient gravity such that another, formal indepth look at the environmental consequences of the proposed action is necessary." *Wisconsin v. Weinberger*, 745 F.2d 412, 418 (7th Cir. 1984). The 2006 biological opinion added information about the Indiana bat's summer roosting locations and habits, but did not significantly alter the Fish and Wildlife Service's prior analysis and its conclusion that Alternative 3C was unlikely to jeopardize the continued existence of the Indiana bat or to adversely affect its critical habitat. The fact that the Fish and Wildlife Service released the 2006 biological opinion after INDOT and FHWA released the 2004 Record of Decision does not independently warrant a supplemental NEPA environmental impact statement.

The Indiana bat's range extends over most of the eastern half of the United States. Paleontological evidence indicates that millions of bats lived within this range before European settlement. When the Indiana bat was listed as an endangered species in 1967, only about 883,300 Indiana bats remained. This number dwindled to around 376,932 in 2001 before beginning to increase slightly. FWS 7114.9 By 2006, the Fish and Wildlife Service was "cautiously optimistic" that the continuous pattern of steep population decline had at least slowed during the prior five years. FWS 7107. Nearly two-thirds of the current population winters in limestone caves in only five states: Illinois, Indiana, Kentucky, Missouri, and New York. FWS 7107, 7114. After extreme declines in the populations of other states, almost half of the current population lives in Indiana. FWS 7108.

The species' continued survival depends heavily on the availability of healthy winter and summer habitat. In the spring, bats emerge from their winter cave homes to head for forested areas and road and rail bridges to roost, mate, and build up fat reserves. Female bats generally find summer roosting areas north of their winter caves and usually use the same roosting areas year after year, enabling observers to identify fairly accurately these roosting areas. FWS 7117. The 2006 Fish and Wildlife Service biological opinion asserted that it is unknown how far females will travel to find suitable roosting areas if the usual

⁹Some of the population estimates in the record are uncannily precise. The court does not vouch for the stated precision of those numbers.

spots are destroyed or degraded over the winter. FWS 7117. The opinion then adopted the finding of a 1991 study in Illinois that Indiana bats generally travel no more than 2.5 miles from their summer roosting areas. Using this information, the Fish and Wildlife Service limited its study of summer roosting areas to 2.5 miles on either side of Alternative 3C. FWS 7100. The opinion also recognized that Indiana bats forage up to five miles from their winter caves during the spring and fall and thus included within the study area a five mile radius of every cave known to shelter Indiana bats with entrances within five miles of Alternative 3C. FWS 7103, 7115.

In 2005, about 206,610 Indiana bats were estimated to live in Indiana. About 74,042 of these bats hibernate within five miles of caves with entrances no more than five miles away from Alternative 3C. FWS 7103, 7143. Two Indiana caves were listed as "critical" winter habitat for the Indiana bat in 1976, one of which was near Alternative 3C. This cave – Ray's Cave – shelters 73.3% of the Indiana bats living in Indiana near Alternative 3C during the winter. FWS 7155. Two other caves – Coon Cave and Grotto Cave – shelter an additional 12.5% and 13.3% respectively. FWS 7155.

In 2004 to 2005, researchers captured a total of fifty-five bats from sites scattered along Alternative 3C and tagged thirty-four of these bats for radio tracking to identify critical summer habitat. FWS 7135. The tracking provided information on thirteen Indiana bat maternity colonies and identified thirty-two

specific roost trees. FWS 7135, 7137. Once these roost trees were identified, the Fish and Wildlife Service expanded the summer habitat study area to encompass a 2.5 mile radius around each tree.

Including these thirteen colonies within the Alternative 3C study area, researchers have identified eighty-three maternity colonies in Indiana. The thirteen colonies represented 15 percent of the known colonies in Indiana and an estimated 0.5 percent of all colonies potentially existing in the United States. FWS 7114, 7138. Based on this information, the Fish and Wildlife Service determined that Alternative 3C might adversely affect the Indiana bat, but that with appropriate mitigation, it would not jeopardize the species' continued existence or any critical habitat.

Bernardin-Lochmueller proposed mitigation measures as part of the 2003 biological assessment to compensate for expected loss of and damage to forests, wetlands, and wildlife habitat. FEIS 2394-2441. Bernardin-Lochmueller determined that the defendants would need to acquire 3,461 acres of forests and wetlands to offset Alternative 3C's impacts, but planned a buffer for a total of 5,230 acres. FEIS 2394. Bernardin-Lochmueller identified potential mitigation resources for later acquisition but recognized that the mitigation plan was contingent on the owners becoming "willing sellers." FEIS 2399, 2401. The agencies intend to reevaluate the sufficiency of the mitigation plan during the second tier, during construction, and after construction. FEIS 2401-02.

The Fish and Wildlife Service generally approved this mitigation plan in its biological opinion, increasing the expected necessary mitigation to 6,585 acres and reaffirming the proposed reevaluations throughout the rest of the project. FWS 7081-82. The biological opinion and mitigation plan also provided for opportunities to purchase caves used during the winter and also the spring and fall where Indiana bats stage their winter exits to summer habitat. FWS 7088; FEIS 2397. A series of emails between the Fish and Wildlife Service, caving experts, and Bernardin-Lochmueller in 2003 detailed the steps taken to prepare a priority list of caves to purchase. FWS 711-15, 720-27, 745-47, 775-77, 978-79, 1073-75.

The essence of the current dispute is that the plaintiffs believe that the defendants have not adequately determined the number of Indiana bats – specifically maternity colonies – that Alternative 3C would affect, so that any estimates of impacted habitat and proposed mitigation measures are inherently insufficient. Plaintiffs also challenge the uncertainties that pervade the mitigation plan. The defendants counter that "it is practically impossible, cost prohibitive, and highly disruptive to capture and radio-tag all colony members, locate all of their roost trees and have a large enough field staff to conduct simultaneous emergence counts" at every roost tree. FWS 7138. These uncertainties, the defendants assert, are acceptable at this stage because they will be defined and reevaluated when more precise information about impacts is available.

B. Endangered Species Act Requirements

These issues are also intertwined with the plaintiffs' general challenges to tiering and are very much like their sufficiency challenges to the National Environmental Policy Act process. See Robert L. Fischman, *Predictions and Prescriptions for the Endangered Species Act*, 34 Envtl. L. 451, 456 (2004) (noting that while the "no jeopardy" requirements under the Endangered Species Act add a "powerful, substantive bite to the old resource management consultation procedure," "a surprising number of ESA disputes center, NEPA-like, around the adequacy of the consultation analysis").

When reviewing issues that do not revolve around the application of a legal standard to settled facts, the court must give substantial deference to the expert agency. See *Marsh*, 490 U.S. at 376-77 (deferring to the Army Corps' administrative decision when dispute rested on contested facts); *Selkirk Conservation Alliance v. Forsgren*, 336 F.3d 944, 964 (9th Cir. 2003) (applying abuse of discretion standard to insufficiency challenge to biological opinion). In the context of endangered species, an agency's reliance on a structurally flawed biological opinion would be arbitrary and capricious. See *National Wildlife Federation v. National Marine Fisheries Service*, 481 F.3d 1224, 1235-39 (9th Cir. 2007) (finding that biological opinion was structurally flawed for several reasons, including failing to incorporate degraded baseline conditions into the jeopardy

analysis and inadequately considering the action's impact on the species' recovery ability).

Questions certainly exist about the definite scope of the Indiana bat population in Indiana, particularly near Alternative 3C. Research in 2005 estimated that a total of 206,610 Indiana bats hibernate in Indiana. FWS 7112. The Fish and Wildlife Service projected that 74,042 of these bats hibernated near Alternative 3C. The agency reported that another 54,913 Indiana bats hibernate in Wyandotte Cave in Crawford County – well outside the Alternative 3C corridor. FWS 7144. The record does not indicate where the other 75,000 to 80,000 Indiana bats thought to live in Indiana hibernate.

The Fish and Wildlife Service reported an expected average of 160 Indiana bats – eighty adult females and eighty offspring – in each of the thirteen maternity colonies discovered near Alternate 3C during the summer months. FWS 7138. The agency also estimated that 5,256 adult male Indiana bats lived near Alternative 3C in the summer. FWS 7139. Assuming that 160 bats live in each colony, a total of 2,080 adult female and young bats are known to summer within the Alternative 3C study area, and another 5,256 adult male bats might do so. Researchers have discovered seventy other colonies elsewhere in Indiana. FWS 7138. Assuming 160 bats for each of those colonies, a total of 11,200 bats are known to summer outside the study area. That still leaves about 180,000 to 200,000 Indiana bats summering somewhere else around Indiana.

More than one-third of all Indiana bats wintering in Indiana hibernate in only three caves within relatively short distances from Alternate 3C. A little more than a quarter of all Indiana bats wintering in Indiana hibernate in one cave well outside the Alternative 3C corridor. The record does not account for over two-fifths of the Indiana hibernating population. Evidence indicates that while Indiana bats may not routinely travel more than 2.5 miles, they can fly up to 300 miles to reach their summer habitats. FWS 7106. At the moment, the evidence presented indicates that a substantial percentage of the Indiana bat population winters near Alternative 3C and may or may not summer in areas very close to Alternative 3C. The location of a good portion of the Indiana bat population in Indiana appears uncertain. The court agrees that it is not feasible to account for where all of these Indiana bats live. The question here is whether that uncertainty makes the biological opinion structurally flawed.

Given the tiering needs of the I-69 project and the presently available information, the 2006 biological opinion is not structurally flawed. The opinion itself indicates that it is an evolving document. The Fish and Wildlife Service has an obligation under the Endangered Species Act to make jeopardy findings using the best available scientific and commercial information. See 16 U.S.C. § 1536(a)(2); *National Wildlife Federation*, 481 F.3d at 1242. At this point, the Fish and Wildlife Service has done so. The agency has recognized that there may be significant gaps in its understanding of the exact locations of the Indiana bat's habitat, but it has tried to compensate by ensuring that Alternative 3C will avoid

all thirty-two roost trees currently identified, by providing for 6,585 acres of mitigation, and by committing to buying (and thus protecting) caves essential for winter habitat. FEIS 2397-98; FWS 7081, 7150. The agencies involved have committed to reevaluating their mitigation needs at several points throughout the project. The law imposes no further obligations. As further information develops in the second tier, challenges to the sufficiency of the 2006 biological opinion may be suitable for further evaluation.

The plaintiffs also question the quality of the acres planned for forest mitigation. INDOT and FHWA have identified, although not yet secured, several areas for possible habitat mitigation. More specific questions about the quality of habitat mitigation simply are not ripe for consideration at this point, and it is not realistic to expect the agencies to have more specific plans in place at this time.

C. Segmenting and the Endangered Species Act

The plaintiffs point to one last regulation to support their objections to the 2006 biological opinion: 50 C.F.R. § 402.14(k). Section 402.14(k) governs the implementation of Endangered Species Act requirements when a project affecting a protected species is segmented. Under very specific circumstances, agencies are allowed to "segment" their projects and to initiate consultation about impacts on protected species for each segment rather than for the entire project. See

Interagency Cooperation – Endangered Species Act of 1973, as Amended, 51 Fed. Reg. 19,926-01, 19,955 (June 3, 1986) (final rule) (to be codified at 50 C.F.R. Part 402) (segmenting allowed only "where a statute authorizes the Federal action to be taken in incremental steps").

If a project is properly segmented, the consulting agency may issue biological opinions at each segment rather than one comprehensive opinion, provided there is a reasonable likelihood that the entire action will not violate the Endangered Species Act requirements. See 50 C.F.R. § 402.14(k)(5); Interagency Cooperation, 51 Fed. Reg. at 19,955 (addressing commenter's concern that "it is difficult to halt a project at its final stage after substantial resources have been invested"). If any individual segment generates a jeopardy finding, the entire project becomes subject to formal consultation, but at that time, the agency can apply for an exemption from the Endangered Species Act requirements to continue. See 50 C.F.R. §§ 402.15(c), 451.02; Interagency Cooperation, 51 Fed. Reg. at 19,955 ("Once a 'jeopardy' opinion is issued . . ., paragraph (k) is inapplicable and the ordinary consultation process applies, allowing access to the exemption process.").

The plaintiffs construe this provision in the context of tiering, but § 402.14(k) refers more to the process that INDOT and FHWA have in mind for the entire second tier rather than to the decision to split the study into programmatic and then site-specific tiers. See Interagency Cooperation, 51 Fed. Reg. at 19,955

(contemplating projects that have discrete implementation stages). In the second phase, INDOT and FHWA have planned to divide the I-69 route between Evansville and Indianapolis into six segments, issuing more detailed environmental impact statements for each segment. FEIS 587. INDOT and FHWA initiated formal consultation in the first tier before segmenting the project, therefore side-stepping the need to decide whether to segment the biological opinion and therefore, under § 402.14(k), the need to point to a specific statute authorizing segmentation. Neither the plaintiffs nor the defendants have pointed to a law that would permit such segmentation.

The Fish and Wildlife Service issued the 2006 biological opinion for the entire project, so it is not currently subject to the 50 C.F.R. § 402.14(k) requirements and benefits. But because the defendants plan to reevaluate the sufficiency of their mitigation plans – and thus necessarily to reevaluate the analysis and conclusions in the 2006 biological opinion – at several points during

¹⁰INDOT and FHWA divided the second tier into six separate segments, asserting that each is independently justified, connects logical termini, and does not restrict the consideration of alternatives for reasonably foreseeable transportation movements. FEIS 605-08. Federal highway regulations require these three findings "to ensure meaningful evaluation of alternatives and to avoid commitments to transportation improvements before they are fully evaluated." 23 C.F.R. § 771.111(f); cf. 40 C.F.R. § 1506.1(c) (prohibiting major federal actions contemplated in an unfinished environmental impact statement unless the action is independently justified, has its own completed environmental impact statement, and "will not prejudice the ultimate decision on the program"). These regulations, 50 C.F.R. § 402.12 governs the however, pertain to the NEPA process. consultation process for the Endangered Species Act and imposes a further obligation for agencies seeking to segment the biological opinion to point to a specific statute authorizing such segmentation. See Conner v. Burford, 848 F.2d 1441, 1457 n. 38 (9th Cir. 1988).

the project, serious impediments may develop if the Fish and Wildlife Service reinitiates formal consultation within a particular segment.

In 1978, the Supreme Court enjoined the construction of a nearly completed federal dam because the planned reservoir would have destroyed the critical habitat of an endangered fish species, the snail darter. See *Tennessee Valley Authority v. Hill*, 437 U.S. 153, 172-73 (1978). The district court had refused to issue an injunction to protect the species, finding that because the project was nearly eighty percent completed, "there were no alternatives to impoundment of the reservoir, short of scrapping the entire project." *Id.* at 166 (internal brackets and quotation marks omitted). The Court concluded that although its interpretation of the Endangered Species Act would require "the sacrifice of the anticipated benefits of the project and of many millions of dollars in public funds," Congress intended endangered species to be afforded "the highest of priorities." *Id.* at 174.

After *Tennessee Valley Authority v. Hill*, Congress enacted 16 U.S.C. § 1536(d) to avoid the commitment of resources in the future to projects destined to fail. Section 1536(d) prohibits agencies from making "any irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not" jeopardize the continued existence or the critical habitat of an endangered or threatened species. See also *Natural*

Resources Defense Council v. Houston, 146 F.3d 1118, 1125 (9th Cir. 1998) (observing that acting agencies must initiate and complete consultation with the expert agency before irretrievably committing resources to a particular project).

At the present time, the agencies have "completed" formal consultation at the end of the first tier. No existing evidence indicates that the defendants will reinitiate formal consultation in the second tier. But it is possible that the Fish and Wildlife Service will re-initiate consultation based on information in the detailed surveys and field studies generated in the second tier. By that point, INDOT and FHWA may have irretrievably committed resources in some of the second tier segments. In that case, then if INDOT and FHWA had segmented the I-69 project in the first tier under 50 C.F.R. § 402.14(k) (requiring statutory authority to segment), the agencies would be able to continue working on the other unaffected segments pending completion of the consultation. The regulations would not require cessation of progress on independent segments in that situation unless the expert agency made a jeopardy finding, triggering formal consultation for the entire project. See Interagency Cooperation, 51 Fed. Reg. at 19,955.

However, because INDOT and FHWA did not segment the I-69 project under § 402.14(k), if the agencies re-initiate formal consultation that affects only a particular segment of I-69, the Endangered Species Act could require INDOT and FHWA to halt all irretrievable commitments of resources in any segment that would foreclose alternatives ensuring the continued existence of the Indiana bat

and its habitat. See *Natural Resources Defense Council*, 146 F.3d at 1127-28 (finding § 1536(d) violation where acting agency executed forty-year water contracts before formal consultation was complete); *Sierra Club v. Marsh*, 816 F.2d 1376, 1383-89 (9th Cir. 1987) (discussing broad injunctive relief available for substantive and procedural ESA violations); *Pacific Rivers Council v. Thomas*, 936 F. Supp. 738, 744-51 (D. Idaho 1996) (observing that while 50 C.F.R. § 402.14(k) may authorize agencies to continue implementing project during "incremental step consultation," agencies not proceeding under § 402.14(k) may not take actions that will irretrievably commit resources before completing formal consultation).

IV. Department of Transportation Act

Section 4(f) of the Department of Transportation Act, now codified at 49 U.S.C. § 303(c), provides substantive protection to public parks, recreation areas, recognized wildlife and waterfowl refuges, and recognized historic sites. The Department of Transportation can approve projects using such lands only if the projects satisfy two conditions: (1) no prudent and feasible alternative exists to avoid using the land; and (2) the project is planned so as to minimize the harm to the protected areas. *Id.* Plaintiffs argue that Alternative 3C would use three protected areas: the Combs Unit of Martin State Forest, Morgan Monroe State Forest, and the Patoka River National Wildlife Refuge.

The Combs Unit of Martin State Forest consists of two separate pieces of land totaling 806 acres, all of which lie outside of the proposed Alternative 3C route. In their first tier studies, the defendants created a two mile wide study band within which a 2,000 foot corridor was drawn as a "working alignment." When portions of the Combs Units were found to be inside the Alternative 3C study band, the defendants simply moved the working alignment to avoid the Combs Units. FEIS 2279-80. The proposed route currently bypasses all areas of the Combs Units. Due to this shift, Alternative 3C does not "use" the Combs Units at all within the meaning of § 303(c).

The Morgan Monroe State Forest encompasses more than 24,000 acres. FEIS 649. State Road 37 runs through it and along its boundaries. INDOT and FHWA expect Alternative 3C to follow the existing State Road 37 alignment, eliminating any additional use of the Morgan Monroe State Forest. Even if the project slightly widens the current State Road 37 alignment, the areas affected do not seem likely to be those designated for "significant park, recreation, or wildlife and waterfowl purposes." See 23 C.F.R. § 771.135(d) (applying the 49 U.S.C. § 303(c) protections only to those portions of public lands specifically designated for park use, recreation, or animal refuge). If the project were to use a small area designated for one of those three purposes – as the maps indicate the scope of any such use would be, the Department of Transportation Secretary has the authority to exempt the use from 49 U.S.C. § 303(c) requirements. See 49 U.S.C. § 303(d). At the present time, Alternative 3C does not use the Morgan Monroe State Forest

and seems unlikely to in the future. If more specific information later shows the opposite, however, the plaintiffs or others may argue that Alternative 3C "uses" the Morgan Monroe State Forest in the second tier.

The Patoka River National Wildlife Refuge presents a different issue. The refuge was established in 1994. It currently includes 5,211 acres of protected wetlands. FEIS 643. With planned future acquisitions, the refuge will expand to 22,083 acres. The refuge consists of high quality bottomland hardwood forest and supports more than 380 species of wildlife. The refuge was created after there was substantial interest in building I-69 near or through the area. In the 1994 environmental impact statement for the refuge itself, the Fish and Wildlife Service indicated that it would not stop any of the proposed I-69 alternatives. The Fish and Wildlife Service stated that it would attempt to avoid buying lands within the chosen alignment so as to avoid or minimize application of 49 U.S.C. § 303(c). FEIS 643. During the 2002 two-day bus tour, federal and state agency officials agreed on an exact route through the wetland areas near but not yet protected by the refuge. *Id.*¹¹

These decisions and agreements reflect a long-term understanding by state and federal agencies that the creation of the wildlife refuge would not prevent any new-terrain route for I-69. Instead, the highway could pass through a portion of

¹¹The chosen route (which would have applied to any of Alternatives 3, 4, or 5) crosses the refuge area at its narrowest point, thus minimizing effects on the wetlands and forest in the area. FEIS 643.

wetlands that could have been but were not yet protected by § 303(c). With that understanding, it was possible to create the wildlife refuge on terms that prevented its creation from controlling the future selection of a specific route for a future I-69.¹² The defendants are thus correct. Alternative 3C does not "use" the Patoka River National Wildlife Refuge and is not subject to the 49 U.S.C. § 303(c) protections on that theory. See *National Wildlife Federation v. Coleman*, 529 F.2d 359, 369-71 (5th Cir. 1976) (finding that not all land functioning as a wildlife refuge is protected by 49 U.S.C. § 303(c), only land that was publicly owned).

Conclusion

The administrative record demonstrates that the defendant agencies have thus far followed required procedures under the National Environmental Policy Act and complied with the substantive provisions of the Clean Water Act, the Endangered Species Act, and the Department of Transportation Act. The defendants' summary judgment motions are therefore GRANTED, and the plaintiffs' summary judgment motion is DENIED. Final judgment shall be entered accordingly.

So ordered.

¹²In light of the interest in building a new-terrain I-69 in the area near the refuge, it is unlikely that it would have been possible to establish the refuge in 1994 without such legal protection for a possible future highway route.

Date: December 10, 2007

DAVID F. HAMILTON, JUDGE United States District Court Southern District of Indiana

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